

ABSTRACT

The present invention relates to an active driver for generating an internal voltage. In an active operation of a semiconductor device, after a voltage drop of a core voltage (VCORE) by consumed current of the core
5 voltage (VCORE) is detected in a multi-step, a corresponding transistor for a driver is variably operated depending on a detected voltage drop level. Therefore, in an active operation, an increase in an active consumption current depending on an increase in the size of an output driver can be minimized.